

Course Syllabus

Human Physiology

ZOOL 2235.001 (lecture)

Fall 2016

Instructor: Dr. Jamila Newton

Course Description: An investigation into the organs, tissues, and physiological systems of the human body. Extended detail on is placed on understanding metabolism, nerves, muscles, cardiovascular, respiratory, and urinary functions. This course is tailored for students desiring to study nursing or kinesiology. 4 Units

Prerequisites: *ZOOL 2250 (Human Anatomy) with a C- or better; CHEM 1000 or CHEM 2100 or equivalent.*

Lab: A lab section (.002, .003, or .004) must be taken concurrently. Lab Instructor: Sandra Lehmann Vierra, MPH

Textbook: Human Physiology, 14th ed, Fox (McGraw Hill) - ebook or hardcopy. ISBN: 9781259908842

Course Objectives: This course is designed to introduce the principles of cell biology. At the end of this course, students should be able to:

- Have a conceptual understanding of how major organs within the human body function separately, and cooperatively.
- Think critically, interpret hypothetical observations based on concepts learned in class, and evaluate the scientific validity of evidence.
- Know how cell, tissue, organ, and system function and structure are related.
- Understand health and disease in terms of organ system function, homeostatic regulation, and whole-body physiology.
- Define homeostasis and explain how this concept is used in physiology and medicine.
- Hopefully develop the curiosity and desire to further incorporate their knowledge gained in this class into their everyday lives.

Lecture Materials and Handouts: Whenever possible, lecture slides will be posted (pdf format) online before each class. Students are expected to bring their own copies of the slides, as well as review them prior to class. Computer and internet access are required for this class. For students who do not otherwise have access to a computer or the internet, computers may be available at several campus locations including the main reading room in the library.

Grades: The total grade will be based out of 600 points.

Lecture:

Assignments	pts vary	All	50 pts
Quizzes	10 pts each	Best 10 of 12	100 pts
Midterm Exams	50 pts each	Best 3 of 4	150 pts
Final Exam	100 pts		100 pts

Lab:

Assignments	10 pts each	Best 10	100 pts
Practicums	50 pts each	Both	100 pts

Total:

600 points

A	A-	B+	B	B-	C+	C	C-	D+	D	F
> 93%	93 - 90	90 - 87	87 - 82	82 - 79	79 - 75	75 - 72	72 - 68	68 - 65	65 - 59	< 59%

Pace of Course: Compared to other classes you may have taken, ZOOL 2235 tends to be a fast-paced, intense course that requires good study skills, daily review of course materials, and a commitment to learning. I strongly recommend that students create daily study schedules, form a study group that meets several times a week, or meet regularly with a tutor. Preview the chapters (and take notes) before you come to class. Attending office hours is also recommended, as students that attend office hours generally see an improvement in their grade.

Use of Electronics: All cell phones are to be off or on silent during class. Absolutely no text messaging. If you must take a phone call or text message, please leave class. During tests (quizzes and exams), cell phones must be off (not even vibrating) and be completely stored in your backpack. Computers/tablets are allowed in class so that you can take notes, or briefly look up information relevant to lecture.

Laboratory Policy: Students must attend lab within their scheduled section. Students must be on time and must consistently attend lab. Vocabulary, concepts, and experiments covered in the laboratory are included on lecture exams and lab exams. Whether or not you complete the lab, you are responsible for the lab work. Any missed labs not arranged in advance, or for a documented medical emergency, will result in a 5% decrease in your entire grade and a zero for lab work that week. Students must have laboratory manual, lab coat, and closed-toe shoes each time you attend lab. A calculator and colored pencils are also suggested. See the separate lab syllabus for more details on laboratory policies and procedures.

Lecture Attendance, Absences, and Make-Ups:

- Daily attendance to lecture is **crucial**. Attendance will be taken. Please arrive on time to class. Two tardies (more than 10 minutes later) equal one absence. Three absences will result in a 10% reduction in the final grade. Each additional absence will accrue an additional 10% reduction.
- Unless otherwise noted, **all assignments are due by the beginning of class**. Turning in an assignment ahead of time is highly recommended.
 - Assignments will lose 10% of their grade for each day turned in late (if turned in 15 minutes after the start of class, it is considered a day late).
 - If you are absent, you may email an electronic copy or legible image of the assignment before the start of class to the instructor. The email must be received in the instructor's inbox before the start of class. Remember that sending an email does not guarantee that it will be received in time, and last-minute "technical difficulties" are not a valid excuse. You will be expected to provide the original, hard copy of the assignment when you return.
- **There will be no make-ups for assignments, quizzes, exams (including the final)**. If you arrive late to a test (an exam or quiz), you will not be given any extra time. If you miss a test, you will receive a zero. Exceptions may be made in under dire circumstances (with proof), such as:
 - Incapacitating illness or accident on the day of the test. This requires a note from the student's physician (not a family member) or from the University Health Services.
 - Death or imminent hospitalization of an immediate family member or dependent on the day of the test. This requires proper documentation.

The documentation must explicitly state that the illness, injury, or incident occurred during the time of the test, or directly prevented the student from taking the test. It must be provided within 7 days of the missed test.

- If you know in advance that you will be absent, you may be able to arrange taking an exam before it is given in class. This is only true for exams, and does not apply for quizzes. Assignments may always be turned in early.

Cheating: Cheating is absolutely forbidden.

- Any of the following are considered cheating:
 - **Plagiarism** is defined as using another person's words without quotation marks and/or reference. Although in preparing problem sets you may paraphrase written information from texts or articles, you must use your own words, clearly cite the source and identify the text that was paraphrased, and demonstrate that you understand that information. If you quote directly or nearly directly from a source, you must indicate this with the use quotation marks and cite the source of information.
 - **Copying** answers or using notes while the exam is being administered is considered cheating. Please keep your eyes on your own paper.
 - **Using calculators, other devices, or other material that has not been explicitly allowed** during exams is prohibited. Calculations needed to answer exam questions will require simple arithmetic.
 - **Altering answers** on a graded problem set or exam, then trying to have the grade changed.
 - **False representation** of you as someone else in this course is a gravely serious offense. Signing in, taking quizzes, or completing any course material for another student is considered cheating.
 - **Forging or altering a grade** change form is also a gravely serious offense. The Registrar's Office is wise to this; they carefully check signatures and send copies of all grade change requests to the faculty member.
- A person cheating receives a 0 for that assignment; their name and a description of the offense may be sent to the Dean. Cheating offenses are subject to disciplinary probation, suspension, or expulsion. These actions may be noted on your transcript!
- If you think a fellow student is cheating we urge you to discretely tell us about it. We will maintain your anonymity.

Contacting the instructor: Regular office hours: Tu ~5:15 to 6:15 N 202. Additional office hours with Dr. Newton can be scheduled with in person or via email: jnewton@post.harvard.edu. Please include "Zool 2235" in the subject line of any emails. Unbeknownst to some, Dr. Newton loves conversing with her students, whether it be answering questions about the material, discussing their other curiosities about science, or offering professional advice. **So please, don't be shy.**

Course Schedule Fall 2016
Human Physiology, Lecture

ZOOL 2235.001

Tu, Th 6:30 – 7:45 p N 101

Dr. Jamila Newton

This schedule is tentative and subject to change. Assignments, due dates, and additional readings will be given with sufficient notice. The lecture exam dates listed here will not change.

Week	Date	Topic	Chp.
1	Th Aug 25	Homeostasis	1
2	Tu Aug 30	Tissues	1
	Th Sep 1	Chemical Composition of the Body	2
	Lab	<i>Homeostasis & Metrics</i>	
3	Tu Sep 6	Cell Structure	3
	Th Sep 8	Enzymes and Energy	4
	Lab	<i>Glucose</i>	
4	Tu Sep 13	Cellular Respiration	5
	Th Sep 15	Exam 1	
	Lab	<i>Diffusion & Osmosis</i>	
5	Tu Sep 20	Metabolism	5
	Th Sep 22	Cell Interactions	6
	Lab	<i>BSL Tutorial</i>	
6	Tu Sep 27	Neurons and Synapses	7
	Th Sep 29	ANS and CNS	8, 9
	Lab	<i>Galvanic Skin Response</i>	
7	Tu Oct 4	Sensory Physiology	10
	Th Oct 6	Endocrine System	11
	Lab	<i>Senses & Reaction Time</i>	
8	Tu Oct 11	Exam 2	
	Th Oct 13	Muscle	12
	Lab	<i>Non-Instructional Day Oct 12; No labs this week</i>	
9	Tu Oct 18	Cardiovascular System	13, 14
	Th Oct 20	The Heart	13, 14
	Lab	<i>Muscle</i>	
10	Tu Oct 25	Blood & Vasculature	13, 14
	Th Oct 27	Immune System	15
	Lab	<i>EKG</i>	
11	Tu Nov 1	Exam 3	15
	Th Nov 3	Respiratory Physiology	16
	Lab	<i>Cardiovascular</i>	
12	Tu Nov 8	Respiratory Physiology	16
	Th Nov 10	Renal Physiology	
	Lab	<i>Pulmonary</i>	
13	Tu Nov 15	<i>To Be Determined</i>	
	Th Nov 17	Digestion	17
	Lab	<i>Urinary</i>	
14	Tu Nov 22	Digestion	18
	Lab	<i>Thanksgiving Nov 24; No labs this week</i>	
15	Tu Nov 29	Exam 4	
	Th Dec 1	Regulation of Metabolism	19
	Lab	<i>Acid-Base Balance</i>	
16	Tu Dec 6	Regulation of Metabolism	19
	Th Dec 8	Reproduction	20
	Lab	<i>Regulation of Metabolism</i>	
17	Th Dec 15	Final Exam, 6:30 – 8:30 pm	